CW/BW shipboard decon procedures

Lesson Topic 4.7

Enabling Objectives

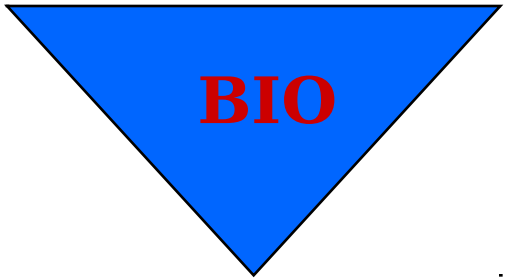
1. Perform buddy aid and self aid procedures
- Perform the procedures to detect and classify chemical agent stimulants
- Discuss decon procedures on gloves, mask, face and mask interior using M291
- Describe the procedures to isolate and mark chemical and biological contaminated areas
- Describe the methods used to decon chemically and biologically contaminated exterior and interior shipboard surfaces

Isolating & Marking Contaminated Areas

- Biological agent contamination
  - Rope area off contaminated area
- Marking
  - 8 X 8 X 11 1/2 inch triangular-shaped sign
  - Blue background
  - "Bio" inscribed in red

Bio marking

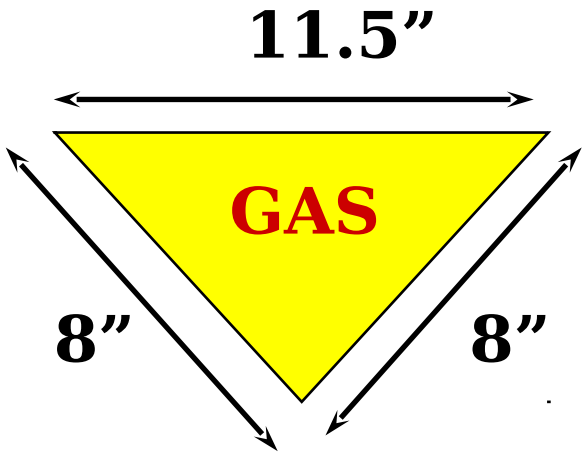
- Info required on marker
  - Agent
  - Date
  - Time



- Attach marker so letters of marker face away from contaminated area

Chemical marking

- Chemical agent contamination
  - Rope off area
- Marking
  - Yellow background
  - "Gas" inscribed in red
- Information required on sign
  - Agent
  - Date
  - Time



Chemical & Biological Agent Decontamination

- Methods of decon
  - Weathering Effects
  - Low humidity - causes microorganisms to dry out
  - Rain washes microorganisms off objects
  - Sunlight will kill most biological agents within a day

Chemical & Biological Agent Decontamination

- Physical removal
  - Countermeasure Wash Down System
  - Prevents agents adhering to surfaces
- Estimations of removal
  - No pre-wetting/no washdown, 0% removal
  - No pre-wetting/15 minute washdown, 60% of V series and 90% of H&G series agents
  - Intermittent pre-wetting/15 minute washdown, 95% of all agents removed

Chemical & Biological Agent Decontamination

- Fire hosing
  - Used after CMWDS
- Scrubbing
  - Decon solutions enhance scrubbing
- Steaming
  - Raising the temp to an average of 212 degrees, effectively destroys most microorganism

Decontaminating solutions

- Calcium Hypochlorite (HTH)
  - Universal decontaminate, destroys all CW and BW agents
  - Highly corrosive

WILL BURN SKIN & EYES AND PRODUCE A TOXIC VAPOR

NOT TO BE USED FOR DECONTAMINATING AIRCRAFT OR SENSITIVE

Decontaminating solutions

- Detergent
  - Synthetic organic detergent/ white flaky solid
  - When unavailable, liquid detergent #50 or equivalent may be substituted

NEVER MIX HTH & DETERGENT TOGETHER

Levels of decontamination

- Operationally complete decontamination
  - decon that will allow completion of ships mission
  - Done by ships force
- Complete decontamination
  - decon that the appropriate tests fail to give a positive response
  - Naval Shipyards, advanced bases, or by shore based personnel

Areas most heavily contaminated

- CW agents
  - All decks & horizontal surfaces
  - Vertical surfaces facing wind
  - Painted surfaces may absorb CW agents
- BW agents
  - Small diameter cylinders such as lines, halyards, ropes & handles
  - All surfaces close to edges, corners, and protruding fittings

Decontamination procedures

- Exterior surfaces
  - Countermeasure wash down system
  - Decon teams
  - Work top to bottom, windward to leeward
  - Fire hosing & scrubbing
  - 1% hypochlorite/detergent solution
  - Heavily contaminated use 9%

Decontamination procedures

- Vertical surfaces, scrub top to bottom
- Horizontal surfaces, scrub one direction
- Retest area for contamination
- Interior spaces using HTH/decon solution
  - Push contamination toward center of the contaminated area
  - Mop up contaminated water with cloth or paper & dispose of in containers

Decontamination procedures

- Aircraft & sensitive equipment
  - Light-duty or medium-duty cleaners
  - Applied by a gentle spray or mopped & scrubbed
  - Flushing with gentle streams of water should be applied to openings in or around sensitive equipment

Summary and review

- Isolating & marking contaminated areas
- Chemical & Biological decontamination
- Decontamination of exterior, interior spaces, aircraft and sensitive equipment